

# Aquatic Nuisance Species

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## **Puget Sound Management Plan Goal**

- Prevent the unauthorized or accidental introduction of non-native species to Puget Sound; and control the spread of and eradicate aquatic and wetland nuisance species already introduced.

## **Strategies for Achieving Goal**

- Adopt existing state and regional aquatic and wetland nuisance species management plans and programs.
- Focus on Puget Sound and Georgia Basin shared waters aquatic nuisance species management issues.
- Improve current management and monitoring of unauthorized and accidentally introduced non-native species.
- Provide education, public involvement and technical assistance.

## **Background and Trends**

The intentional or accidental introduction of marine plant and animal species that are not native to Puget Sound can wreak havoc on the environment and economy. Not all non-native species are problems. Some, such as Japanese oysters and manila clams, are valuable to region's economy. Non-native species that threaten native marine life and habitat are called aquatic nuisance species.

Most non-native species are undesirable because they could out-compete and displace native species and destroy or seriously alter habitat and wetlands. If commercially important native species were displaced, local and regional economies could suffer.

Several non-native species threaten or are already present in Puget Sound. Zebra mussel, European green crab and the Chinese mitten crab are significant threats. These species were designated as harmful exotic species by state rule. Purple loosestrife, hydrilla and spartina cordgrass have invaded the basin's freshwater and estuary systems. The state's Noxious Weed Control Board classifies these as noxious weeds. Non-native species can enter Puget Sound in many ways, including releases from research institutions, aquaculture operations, the aquarium trade and public and private aquaria, discharge of ballast water from vessels, and the distribution of seafood commodities.

The state Department of Agriculture is responsible for eradicating the spartina infestations in Puget Sound. Between 1997 and 1999, the department reduced the area of spartina infestations by 42 percent in Skagit County and 13 percent in Island County.

To effectively prevent harm from non-native species, a Puget Sound/Georgia Basin International Task Force work group recommended a coordinated approach that involves education, controlling pathways of introductions, response planning, monitoring and research. Washington's management plan for aquatic nuisance species incorporates actions that the task force recommended for Puget Sound.

In 2000, a statewide Aquatic Nuisance Species Coordinating Committee was convened to prevent and minimize the introduction of non-native aquatic species and to control the spread of aquatic nuisance species already established in the state by fostering cooperation among federal, state, tribal and private entities on aquatic nuisance species issues.

The Department of Fish and Wildlife administers a ballast water management program for vessels entering state waters. Ship operators must exchange vessel ballast water at least 50 miles off the Washington coast and report these practices to the department. After 2002, ships that cannot exchange ballast before entering state waters must treat it prior to discharge in state waters. By 2002, the department will develop treatment standards and the private sector will test a ballast water treatment program.

## **Highlights of 2001-2003 Actions**

- Fish and Wildlife will monitor for the presence of green crab.
- Agriculture will coordinate programs to control the spread of spartina and purple loosestrife.
- The Department of Ecology will survey for freshwater noxious aquatic weeds and provide technical assistance and funding to reduce introductions and control existing infestations.

## **2001-2003 Budget for State Actions**

Total Provided Funding	\$256,958
Total Other Funding	\$48,000

STATE AGENCY ACTIONS	OUTCOMES	See page 9 for key.					
		Pri-ori-ty	Non-point	Sal-mon	Budget Code	PS Plan Element	Action ID

## DEPARTMENT OF FISH AND WILDLIFE

Manage infestations of European green crab in Puget Sound through intensive monitoring of the presence of green crab and, as appropriate, provide education and prevent unwanted transfers of this species into the region.	The spread of green crab infestations will be minimized.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DFW-06	ANS-1	110
Coordinate those elements in the state Aquatic Nuisance Species Management Plan that relate to Puget Sound including monitoring programs for green crab, zebra mussel and other nonnative species, and programs for public education and ballast water management.	Improve program coordination in the Puget Sound basin to reduce or eliminate the introduction of nonnative species.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DFW-06	ANS-3	112

## DEPARTMENT OF AGRICULTURE

Employ a full-time, statewide Spartina Control Coordinator. Continue to use integrated pest management methods to control the spread of Spartina and work toward eradicating known infestations. Administer a general water quality permit with Ecology so that landowners can obtain coverage for treating Spartina infestations with pesticides provided they meet certain conditions. Participate in manual and mechanical control efforts.	The spread of Spartina will be minimized and work will occur toward the eradication of known infestations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOA-01	ANS-3	113
Use several integrated pest management techniques to help landowners control the spread of purple loosestrife. Contract with Washington State University to raise insects for biological control of purple loosestrife. Administer a general water quality permit with Ecology so that landowners can obtain coverage under permit to treat purple loosestrife infestations with herbicides, provided they meet certain conditions. Provide boats to counties so they can access infestations. Participate in manual control efforts.	The spread of purple loosestrife will be minimized and work will occur toward the eradication of known infestations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOA-01	ANS-3	114

		See page 9 for key.					
STATE AGENCY ACTIONS	OUTCOMES	Pri-ori-ty	Non-point	Sal-mon	Budget Code	PS Plan Element	Action ID
<b>DEPARTMENT OF ECOLOGY</b>							
Survey lake and river public access areas for noxious aquatic weeds. Provide funding and technical assistance to state and local organizations working to reduce the introduction of fresh water noxious aquatic weeds in state waters and to control existing noxious aquatic weed populations. Serve on exotic species committee, as a scientific advisor on aquatic weeds to the State Noxious Weed Control Board, and provide review and input to the Aquatic Plant Management Supplemental Environmental Impact Statement. Initiate research and investigate innovative techniques for managing aquatic weeds; present papers on activities to manage aquatic weeds; and maintain the Aquatic Weeds Web site. Provide technical assistance about aquatic weeds and their management to the public via e-mail, telephone, speaking engagements, web site, disseminate educational materials, and produce a pamphlet about which aquatic plant species to plant in ornamental ponds. Continue work on the hydrilla eradication project.	Noxious weeds discovered when surveying public access areas and information about areas with early infestation will be reported to the appropriate county weed board or district. Information will be provided about early infestation grants so appropriate control measures can be taken. Any newly discovered invasive aquatic species will be reported to the State Noxious Weed Control Board for possible listing as a noxious weed. The Aquatic Plan Management Supplemental EIS will be updated to consider and possibly to include additional chemicals and practices and will result in more tools available for the management of aquatic weeds. The results of research projects documenting environmental impacts of an invasive aquatic species management action will be published in a peer-reviewed journal. Technical and financial assistance and education activities will result in potential eradication and/or control of aquatic weeds from individual sites along with the return of the beneficial uses of the water body and a greater awareness by the public of aquatic weeds and their economic and ecological impacts to Washington State waters.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOE-10	ANS-3	115
The Spills Program will provide technical maritime and federal/international regulatory expertise to: - the Fish and Wildlife's Aquatic Nuisance Species Ballast Water Subcommittee; - the Navy Ballast Water evaluation process; - the Pacific Ballast Water coordination group; and - Canada's West Coast Regional Working Group on Ballast Water Issues. Upon completion of the Fish and Wildlife rules, Ecology vessel inspectors will disseminate educational materials and provide technical assistance.	Entities with the potential to introduce aquatic nuisance species to Washington waters will have current information about Washington State restrictions pertaining to ballast water exchange requirements. The introduction of aquatic nuisance species to Washington waters will be reduced.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOE-09	ANS-3	151
<b>PUGET SOUND WATER QUALITY ACTION TEAM</b>							
The Puget Sound Action Team will continue to represent Puget Sound interests on the national Aquatic Nuisance Species Task Force, Western Regional Panel and the Coastal Committee of the panel to address regional coordination issues, funding and management programs.	Regional and state programs will be coordinated to prevent and control new aquatic nuisance species introductions to Puget Sound and state waters.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PSAT-04	ANS-3	116

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<b>PUGET SOUND WATER QUALITY ACTION TEAM</b>							
The Puget Sound Action Team will continue to coordinate aquatic nuisance species management issues with the Northwest Straits Commission and Puget Sound/Gorgia Basin International Task Force.	International and Puget Sound regional activities to control and eliminate aquatic nuisance species will be coordinated and effective.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PSAT-04	ANS-3	117
The state departments of Fish and Wildlife, Ecology, Natural Resources; Puget Sound Action Team; U.S. Coast Guard and the shipping industry will develop and implement a ballast water management program for vessels entering Puget Sound and state waters.	By 2002, standards will be developed and implemented to treat ballast water discharges from vessels to ensure that no aquatic nuisance species are introduced to Puget Sound or state waters. A variety of treatment technologies will be demonstrated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PSAT-04	ANS-3	118